

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

MONEY AND DATA PROTECTION	)	
LIZENZ GMBH & CO. KG,	)	
	)	
Plaintiff,	)	C.A. No. 18-1477-CFC
	)	
v.	)	<b>JURY TRIAL DEMANDED</b>
	)	
DUO SECURITY, INC.,	)	
	)	
Defendant.	)	

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Money and Data Protection Lizenz GmbH & Co. KG (“MDPL”), by and through its attorneys, alleges against Defendant Duo Security, Inc. (“Duo”) as follows:

**NATURE OF THE ACTION**

1. MDPL owns the inventions described and claimed in United States Patent No. 9,246,903 entitled “Authentication Method” (the “’903 patent”), a copy of which is attached to this complaint as Exhibit A.
2. Duo, without MDPL’s permission, has used and continues to use MDPL’s patented technology in the offerings that Duo makes, uses, imports, offers to sell, and sells. MDPL seeks monetary damages for patent infringement and an injunction preventing Duo from making, using, offering to sell, and selling MDPL’s technology without permission.

**THE PARTIES**

3. Money and Data Protection Lizenz GmbH & Co. KG is a foreign company organized and existing under the laws of Federal Republic of Germany with a place of business at Niederfeldstrasse 19, Bielefeld, Germany 33611.

4. Duo Security, Inc. is a corporation organized and existing under the laws of the State of Delaware with a principal place of business at 1327 Jones Drive, Suite 106, Ann Arbor, Michigan 48105.

### **JURISDICTION AND VENUE**

5. This is a civil action for patent infringement arising under the United States patent statutes, 35 U.S.C. §§ 271 and 281, *et seq.*

6. The Court has exclusive subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. The Court has personal jurisdiction over Duo because Duo is organized and exists under the laws of the State of Delaware, and Duo is a resident of the State of Delaware. Duo also has conducted and does business within the State of Delaware, and it has designated The Corporation Trust Company as its agent for service of process in the State of Delaware.

8. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b) because Duo is a resident of the State of Delaware.

### **THE '903 PATENT**

9. On January 26, 2016, the United States Patent and Trademark Office issued United States Patent No. 9,246,903, entitled "Authentication Method." At the time of its issue, the '903 patent was assigned to MDPL, and MDPL is currently the owner of the '903 patent with full rights to pursue recovery of royalty or damages for infringement of such patent, including full rights to recover past and future damages.

10. Each claim of the '903 patent is valid and enforceable.

**DUO'S INFRINGEMENT OF THE '903 PATENT**

11. Duo has infringed one or more claims of the '903 patent literally and/or under the doctrine of equivalents, and, unless enjoined, will continue to do so, by making, using, selling, offering for sale infringing offerings, without a license or permission from MDPL.

12. Duo's infringing software and service offerings (referred to in this complaint as "offerings") include the Duo Mobile app and any other Duo products and services for two-factor user authentication that perform an authentication function using a mobile device.

13. Exemplary claim 1 of the '903 patent recites:

A method of authenticating a user to a transaction at a terminal, comprising the steps of:

transmitting a user identification from the terminal to a transaction partner via a first communication channel,

providing an authentication step in which an authentication device uses a second communication channel for checking an authentication function that is implemented in a mobile device of the user,

as a criterion for deciding whether the authentication to the transaction shall be granted or denied, having the authentication device check whether a predetermined time relation exists between the transmission of the user identification and a response from the second communication channel,

ensuring that the authentication function is normally inactive and is activated by the user only preliminarily for the transaction,

ensuring that said response from the second communication channel includes information that the authentication function is active, and

thereafter ensuring that the authentication function is automatically deactivated.

14. Duo's offerings, including Duo Mobile, infringe every element of at least claim 1 of the '903 patent. For example, Duo implements a method for authenticating a user to a transaction at a terminal through its secure, two-factor authentication Duo Mobile app, which allows for the verification of the identity of users (who have approved push notifications) before

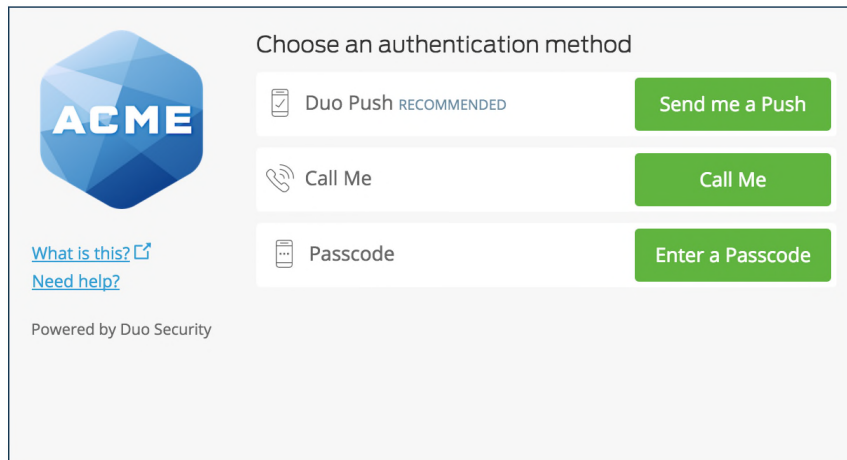
they may access their “work, personal, cloud and on-premises apps.”

<https://duo.com/product/trusted-users/two-factor-authentication/duo-mobile>. The steps of at least claim 1 are met by actions provided for and taken by Duo through the offerings (including the actions of software and systems) it makes available to users. The explanation below is with reference to materials published by Duo describing the steps its offerings perform to provide benefits to users. Although users are featured in Duo’s materials, which are public documents published to provide information for prospective users, the steps of the method are carried out by Duo alone, with references to users here providing context.

15. Duo’s offerings include the Duo Prompt component with a Push authentication option executing at a terminal:

The Duo Prompt lets you choose how to verify your identity each time you log in.

...



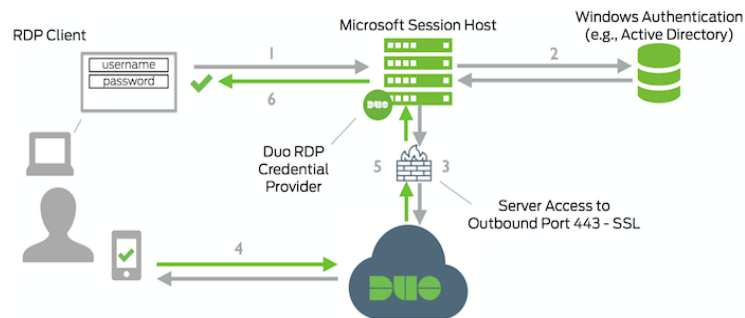
See <https://guide.duo.com/prompt>.

The Duo Mobile app delivers two-factor push notifications to your phone for fast and secure access that won’t slow your users down.

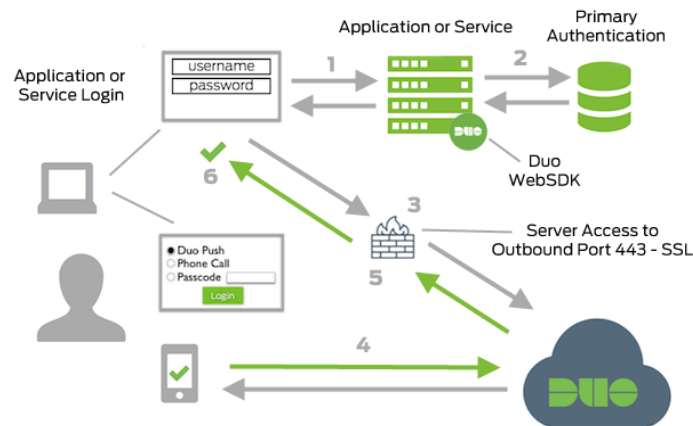
After logging in with your username and password, choose Duo Push on the authentication prompt. Then, tap ‘Approve’ on the push notification sent to your phone seconds later to securely access your application.

See <https://duo.com/product/trusted-users/two-factor-authentication/authentication-methods/duo-push>.

16. When Duo's Push option is active, Duo's offerings, including, *e.g.*, Duo Prompt, transmit or facilitate transmission of a user identification from the terminal (RDP Client computer) to a transaction partner (Microsoft Session Host), as shown below in step 1, via a first communication channel (the wired network):



See <https://duo.com/docs/rdp>.



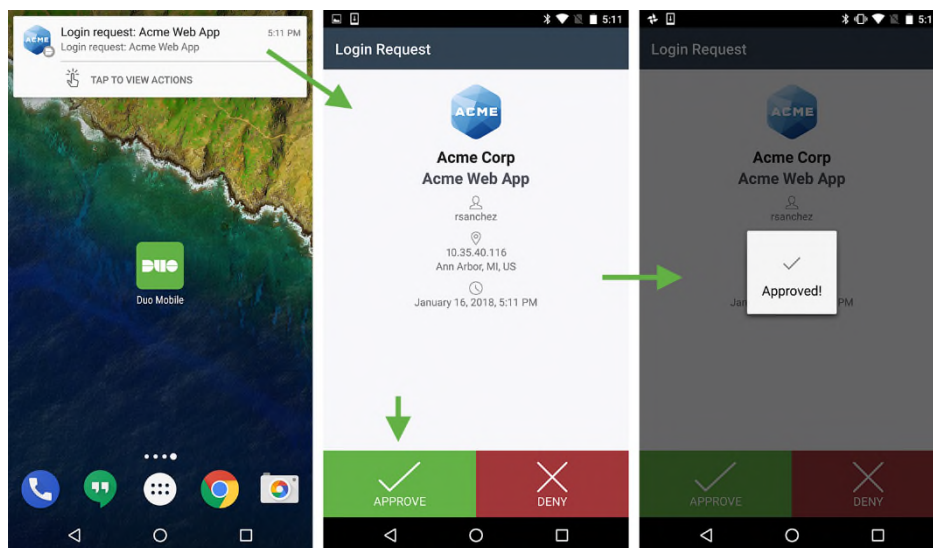
See <https://duo.com/docs/duoweb>.

17. Duo's offerings provide an authentication step that includes an authentication device using a second communication channel for checking an authentication function that is implemented, by the Duo Mobile app executing, for example, in a mobile device of the user:

After logging in with your username and password, choose Duo Push on the authentication prompt. Then, tap 'Approve' on the

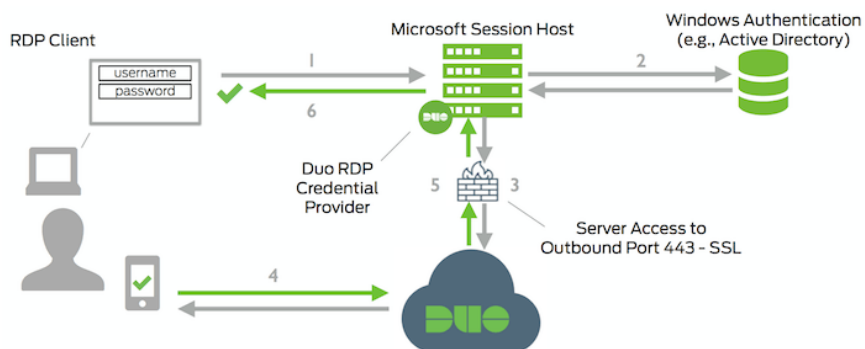
push notification sent to your phone seconds later to securely access your application.

See <https://duo.com/product/trusted-users/two-factor-authentication/authentication-methods/duo-push>.



See <https://guide.duo.com/android>.

18. Duo's offerings provide an authentication step in which an authentication device uses a second communication channel for checking an authentication function. For example, Duo's authentication uses a mobile network to communicate with Duo Mobile app on a mobile device (shown below as step 4):



See <https://duo.com/docs/rdp>.

19. Duo's offerings, as a criterion for deciding whether the authentication to the transaction shall be granted or denied, have the authentication device check whether a predetermined time relation exists between the transmission of the user identification and a response from the second communication channel, for example by allowing a 60-second time interval for a response from the mobile device. *See* [https://help.duo.com/s/article/2185?language=en\\_US](https://help.duo.com/s/article/2185?language=en_US).

20. Duo's offerings ensure that the authentication function is normally inactive and is activated by the user only preliminarily for the transaction, for example by keeping Duo Mobile app on a mobile device dormant and transmitting Duo Push notification only when login is requested. *See* <https://guide.duo.com/android>. This step is carried out by Duo Mobile app in concert with other Duo offerings. As noted above, any user action referred to only provides context for this step taken by Duo offerings.

21. Duo's offerings ensure that said response from the second communication channel includes information that the authentication function is active, for example by activating the Duo Mobile app upon receipt of a Duo Push notification, which is a form of condition checking, and subsequently transmitting a user approval response from the mobile device. *See* <https://guide.duo.com/android>. This step is carried out by Duo Mobile app in concert with other Duo offerings. As above, references to users in the Duo materials are noted solely to the extent they provide necessary context for understanding this step carried out by Duo offerings.

22. Duo's offerings ensure that the authentication function is automatically deactivated, for example by transmitting a Duo Push notification only when login is requested and closing it upon user action, or expiring the notification after a 60-second time interval. *See, e.g.,* <https://guide.duo.com/android>; <https://help.duo.com/s/article/2185>. This step is carried out

by Duo's offerings. Again, the presence of the user in cited materials provides context for this step carried out by Duo offerings.

23. The steps of "ensuring that the authentication function is normally inactive and is activated by the user only preliminarily for the transaction" are directed and controlled by Duo, which performs condition checks as to external conditions of acts, if any, taken by a user and which sets conditions, but which does not require steps by a user for infringement. Duo's steps associated with its push authentication service occur only after a user previously installs the Duo Mobile app and upon the condition occurring of selection of "Approve" when a notification arrives. *See* <https://guide.duo.com/android>. In this way Duo also establishes the manner and timing of user actions, without those user actions being required to meet the limitations of the claims.

#### **DUO'S KNOWLEDGE OF THE '903 PATENT**

24. Doug Song is the Co-Founder, Chairman, and Chief Executive Officer of Duo. Jon Oberheide is Duo's Co-Founder and Chief Technology Officer. Both individuals maintain accounts on LinkedIn, a well-known online professional network. *See* <https://www.linkedin.com/in/dugsong>; <https://www.linkedin.com/in/jonoberheide>. LinkedIn users can send and receive messages through the easily-accessed messaging function, which is an important feature of this professional network. Mr. Song and Mr. Oberheide have purposely availed themselves of the functions and benefit of LinkedIn, which include being contacted through the LinkedIn messaging service by those interested in their roles at Duo.

25. On December 14, 2016, MDPL transmitted messages to Mr. Song and Mr. Oberheide via LinkedIn. In the messages, MDPL notified Mr. Oberheide and Mr. Song of the '903 patent. A copy of the messages is attached to this complaint as Exhibit B. On information



and belief, Mr. Oberheide and Mr. Song received and read the LinkedIn messages from MDPL. No delivery failure was reported in response to the transmission of these messages by LinkedIn. Mr. Oberheide and Mr. Song failed to respond to MDPL's messages sent to them, notifying them of the '903 patent.

26. Mr. Song and Mr. Oberheide have knowledge of the practices and procedures to secure intellectual property rights, including patent protection, for inventions. Mr. Song and Mr. Oberheide are named as inventors on numerous patents and patent applications issued by and filed in the U.S. Patent and Trademark Office.

27. On August 21, 2018 MDPL again contacted Duo, transmitting a letter notifying Duo that its offerings require a license under the '903 patent, and enclosing a copy of the patent. A copy of the August 21, 2018 letter is attached to this complaint as Exhibit C.

28. Duo received and reviewed the August 21, 2018 letter and the '903 patent. Shortly thereafter, on September 11, 2018, Duo responded by letter. Duo's response effectively acknowledged that Duo had reviewed and analyzed the '903 patent relative to its own offerings in sufficient detail to draw a conclusion on its perceived need for a license or that it had not reviewed or analyzed the patent but turned a blind eye to it and declined to take a license without a legal basis. A copy of the September 11, 2018 letter from Duo to MDPL is attached to this complaint as Exhibit D.

29. On September 25, 2018, MDPL filed a complaint for patent infringement against Duo.

30. Duo has continued its past practices following receipt of MDPL's December 14, 2016 messages and August 21, 2018 letter, despite having knowledge of the '903 patent.

31. Duo's offerings, including its Duo Mobile app, lack substantial non-infringing uses.

**COUNT 1**

**(Direct Infringement of U.S. Patent No. 9,246,903)**

32. MDPL repeats and re-alleges the allegations of paragraphs 1-33, as though fully set forth herein.

33. MDPL is the exclusive owner of all rights in the '903 patent. The '903 patent, and each claim in the '903 patent, is valid and enforceable.

34. Duo has infringed one or more claims of the '903 patent, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a), by making, using, offering to sell, or selling infringing offerings, without authorization from MDPL. Duo's offerings and the steps it performs in connection with its offerings infringe the claims of the '903 patent.

35. Duo's infringement of the '903 patent has been and continues to be willful. Duo, through its CEO and CTO, knew of the '903 patent, and that Duo's offerings infringe the patent, since at least as early as December 14, 2016 when Duo received messages from MDPL via LinkedIn informing it of the '903 patent, and since at least as early as September 11, 2018 when Duo replied to MDPL in response to the August 21, 2018 letter notifying Duo of its need for a license.

36. Despite knowing of the '903 patent and its infringing activities, Duo has continued its activities, including marketing and selling its infringing products, and it continues to do so to the present day. Duo has declined to take a license from MDPL, and never explained why Duo does not need a license. Since before the filing of the original complaint in this action, Duo has disregarded and continues to disregard an objectively high likelihood that its actions

infringe the '903 patent. Duo has known of this risk, or this risk is so obvious that Duo should have known of it.

37. MDPL has been damaged by Duo's infringement of the '903 patent and will suffer further substantial and irreparable harm if Duo is not enjoined from continuing to infringe the '903 patent.

**PRAYER FOR RELIEF**

WHEREFORE, MDPL prays for a judgment in its favor and against Duo, as follows:

- A. A judgment holding Duo liable for direct infringement U.S. Patent No. 9,246,903 under 35 U.S.C. § 271(a);
- B. A finding that Duo is liable for willful infringement;
- C. Compensatory damages awarding MDPL damages caused by Duo's infringement of the '903 patent in an amount to be proven at trial, but no less than a reasonable royalty, together with pre-judgment interest and post-judgment interest;
- D. Enhanced damages pursuant to 35 U.S.C. § 284;
- E. An order preliminarily and permanently enjoining Duo, its officers, directors, employees, agents, assigns and successors in interest, and all persons in active concert with them, from infringing the '903 patent;
- F. A judgment holding this to be an exceptional case, and an award to MDPL for its attorneys' fees, costs and expenses incurred prosecuting this action pursuant to 35 U.S.C. § 285; and
- G. Such other and further relief as the Court deems just and equitable.

**DEMAND FOR JURY TRIAL**

Pursuant to Federal Rule of Civil Procedure 38, plaintiff demands a jury trial on all issues so triable.

Respectfully submitted,

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